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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,420	02/21/2001	Oh Nam Kwon	8733.388.00	5851

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EXAMINER
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WANG, GEORGE Y

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/788,420

Applicant(s)

KWON ET AL.

Examiner

George Y. Wang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-26 is/are pending in the application.
- 4a) Of the above claim(s) 11-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admission of Prior Art (AAPA) in view of Rho et al. (U.S. Patent No. 6,057,896, from hereinafter "Rho").

3. As to claims 1 and 8-9, AAPA discloses a liquid crystal display (LCD) device (fig. 1e) having a substrate (10), a first conductive layer (12) on the substrate, a first

insulating layer (16) on the first conductive layer, a semiconductor layer (18) on the first insulating layer, a second conductive layer (20) on the first insulating layer, a third conductive layer (22, 24) on the second conductive layer, a second insulating layer (26) on the third conductive layer, the second insulating layer having a hole exposing a portion of the third conductive layer, a fourth conductive layer (28) on the second insulating layer and electrically contacting the third conductive layer, and a fifth conductive layer (30) between the third and fourth conductive layers.

However, AAPA fails to specifically disclose a sixth conductive layer between the exposed portion of the third conductive layer and the fourth conductive layer, and between the first conductive layer and the fifth conductive layer.

Rho discloses an LCD having a sixth conductive layer (fig. 6, ref. 90, 31) between the exposed portion of the third conductive layer and the fourth conductive layer, and between the first conductive layer and the fifth conductive layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a sixth conductive layer between the exposed portion of the third conductive layer and the fourth conductive layer, and between the first conductive layer and the fifth conductive layer since one would be motivated to provide displays with difference storage capacitors (col. 9, lines 27-58) as well as to ultimately reduce coupling capacitance (col. 2, lines 8-10).

4. Regarding claims 2-3, AAPA discloses an LCD device as recited above where the first conductive layer includes aluminum metal (pg. 3, line 18-19).

5. As per claim 4, AAPA discloses an LCD device as recited above where the second conductive layer includes an impurity-doped semiconductor (12).

6. As to claims 5-6, AAPA discloses an LCD device as recited above where the third conductive layer has a first and second parts that include metal (20) and in between the first and second parts is where the semiconductor is etched (pg. 3, line 11).

7. Regarding claim 7, AAPA discloses an LCD device as recited above where the fourth conductive layer includes a transparent electrode (pg. 3, lines 15-17).

### ***Response to Arguments***

8. Applicant's arguments filed October 11, 2005 have been fully considered but they are not persuasive.

Applicant's main argument is that the prior art references, namely AAPA and Rho, fail to specifically teach or render obvious the sixth conductive layer between the exposed portion of the third conductive layer and the fourth layer, and between the first conductive layer and the fifth conductive layer as recited in independent claim 1. Applicant argues that the two references are "trying to address different problems" and that Rho actually "teaches away" from the combination. However, it is noted that Applicant does not provide any further support for his contentions. Nowhere are these "different problems" addressed or mentioned. In addition, Applicant's assertion that Rho

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"teaches away from the fifth conductive layer electrically contacting the first conductive layer" is unsupported and unsubstantiated. Applicant provides no reference to any teaching or suggestion in any of the prior art references but merely asserts that such a configuration would "short the capacitor."

The only argument worth considering is Applicant's discussion regarding Rho's sixth layer being a drain electrode (fig. 6, ref. 90, 31). Applicant argues that Rho's drain electrode (90) and pixel electrode (140) are like the drain electrode (24) and pixel electrode (28) taught in Fig. 1E of AAPA. However, Applicant's identification of these corresponding elements is not persuasive because nowhere in the claims is the sixth conductive layer specified more than just being a "sixth conductive layer." Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore, nothing in the claims precludes Rho's conductive layer (90, 31) from being read as the "sixth conductive layer."

As a result, Applicant's arguments do not place this application in condition for allowance at this time.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George Y. Wang  
Examiner  
Art Unit 2871

December 20, 2005

  
ANDREW SCHECHTER  
PRIMARY EXAMINER